

USING EXTERNAL RADIATORS WITH ELECTROOSMOTIC
PUMPS FOR COOLING INTEGRATED CIRCUITS

Abstract of the Disclosure

An integrated circuit to be cooled may be abutted in face-to-face abutment with a cooling integrated circuit. The cooling integrated circuit may include electroosmotic
5 pumps to pump cooling fluid through the cooling integrated circuits via microchannels to thereby cool the heat generating integrated circuit. The electroosmotic pumps may be fluidically coupled to external radiators which extend upwardly away from a package including the
10 integrated circuits. In particular, the external radiators may be mounted on tubes which extend the radiators away from the package.